IN THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) A single crystal semiconductor manufacturing apparatus for manufacturing a single crystal semiconductor by heating a melt in a crucible by heating means, contacting an impurity-added seed crystal with the melt, and pulling up the seed crystal, ~~wherein:~~ comprising the steps of:

adjusting the temperature of the melt ~~is adjusted~~ by the heating means and applying a horizontal magnetic field ~~is applied~~ to the melt so that the seed crystal is heated by radiant heat and so that, when the seed crystal is contacted with the melt, a temperature difference between the seed crystal and the melt becomes not larger than an allowable temperature difference ~~not causing~~ and does not cause dislocation in the seed crystal.

2. (Currently amended) A single crystal semiconductor manufacturing apparatus for manufacturing a single crystal semiconductor by heating a melt in a crucible by heating means, contacting an impurity-added seed crystal with the melt, and pulling up the seed crystal, wherein:

a plurality of adjusting means for independently adjusting an amount of heat applied to the crucible disposed, and

the melt is adjusted by the plurality of adjusting means and a horizontal magnetic field is applied to the melt so that the seed crystal is heated by radiant heat and so that, when the seed crystal is contacted with the melt, a temperature difference between the seed crystal and the melt becomes not larger than an allowable temperature difference not causing dislocation in the seed crystal.

3.(original) The single crystal semiconductor manufacturing apparatus according to claim 1 , wherein the allowable temperature difference not causing dislocation in the seed crystal is determined according to an impurity concentration added to the seed crystal and a size of the seed crystal.

4. (Original) The single crystal semiconductor manufacturing apparatus according to claim 2, wherein among the plurality of adjusting means, at least the heating means at the bottom side of the crucible provides an invariable or substantially invariable heating amount when the seed crystal is contacted with the melt and an invariable or substantially invariable heating amount when the single crystal semiconductor is being pulled up.

5. (Currently amended) A single crystal semiconductor manufacturing method for manufacturing a single crystal semiconductor by heating a melt in a crucible, contacting an impurity-added seed crystal with the melt, and pulling up the seed crystal, ~~wherein:~~ comprising the steps of:

heating the melt ~~is heated~~ and applying a horizontal magnetic field ~~is applied~~ to the melt so that the seed crystal is heated by radiant heat and so that, when the seed crystal is contacted with the melt, a temperature difference between the seed crystal and the melt becomes not larger than an allowable temperature difference ~~not causing~~ and does not cause dislocation in the seed crystal.

6. (Original) The single crystal semiconductor manufacturing method according to claim 5, wherein the allowable temperature difference not causing dislocation in the seed crystal is determined according to an impurity concentration added to the seed crystal and a size of the seed crystal.

7.(Currently amended) A single crystal semiconductor manufacturing method for manufacturing a single crystal semiconductor by heating a melt in a crucible, contacting an impurity-added seed crystal with the melt , and pulling up the seed crystal ~~wherein:~~ comprising the steps of:

~~the melt is heated so that a temperature difference between the seed crystal and the melt becomes not larger than an allowable temperature difference not causing~~

~~dislocation in the seed crystal when the seed crystal is contacted with the melt,~~

~~and a magnetic field is applied to the melt before the seed crystal is contacted with the melt.~~

Heating the melt and applying a horizontal magnetic field to the melt before the seed crystal is contacted with the melt so that the seed crystal is heated by radiant heat and so that, when the seed crystal is contacted with the melt, a temperature difference between the seed crystal and the melt becomes not larger than an allowable temperature difference and does not cause dislocation in the seed crystal.